



Young women's travel safety and the journey to work: Reflecting on lived experiences of precarious mobility in three African cities (and the potential for transformative action)

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ABSTRACT

The relationship between women's everyday lived travel experiences as daily commuters and their employment history and potential has not been adequately researched and documented in African contexts. This multidisciplinary study, utilising an innovative action research methodology, compares experiences of young women (18–35y) resident in low-income neighbourhoods of three diverse African cities - Abuja, Cape Town and Tunis. It examines the challenges they face when undertaking travel to income-earning opportunities, the tactics necessary to enable travel with a modicum of safety and dignity, and the ongoing implications for women's employment trajectories and wider well-being. Two (often inter-related) themes occupy a central position in the discussion: mobility scheduling (as a response to domestic/care responsibilities and trip-chaining requirements) and experiences of harassment.

1. Introduction

Africa's transport and travel arena is highly gendered (Porter, 2008, 2011; Porter et al., 2022; Uteng, 2012; Uteng and Turner, 2019). Development strategies emphasise the importance of recruiting young women as active labour force participants, requiring them to be increasingly spatially mobile, but women of all ages, in most locations, are discriminated against with regard to both access and use of transport. Their lack of agency as transport users has far-reaching implications regarding their opportunities for accessing meaningful paid work and for their wider life chances. When transport disadvantage is compounded by deep social disadvantage, as is the case for the young women on whom we focus in this paper, exclusionary impacts on spatial and temporal mobility almost inevitably follow, with likely significant repercussions on current and future employment opportunities and potential, spanning education, skills acquisition and employment across

all sectors. The precarity experienced by young women in these contexts - where daily mobility is not only difficult but often risky - is in urgent need of greater attention and action.

The actual patterning of relationships between women's everyday lived travel experiences as daily commuters and their employment history and potential has not been adequately researched and documented in African contexts.¹ This multidisciplinary research study, conducted in three diverse African cities - Abuja, Cape Town and Tunis - utilised an innovative action research methodology to build in-depth understanding of the challenges young women resident in low income areas face when undertaking travel to income-earning opportunities, the tactics they find necessary to enable travel with a modicum of safety and dignity, and the ongoing implications for women's employment trajectories and wider well-being. We chose to specifically focus on younger women in the 18–35 age cohort because this is the age at which women are likely to be just about to enter or have entered the workforce, while at

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¹ Women's direct employment within the transport sector itself is the focus of another paper (Porter et al. 2023)

the same time it is precisely the age at which they may have young children and other caring responsibilities (potentially impacting both travel and employment possibilities). Within this cohort our focus was on women resident in very low-income neighbourhoods at the urban periphery, because it is in these locations that transport disadvantage (as discussed in [section 3.1](#)) can be particularly challenging and employment opportunities in the locality are often very sparse.

Field research took place between 2019 and 2022, thus encompassing pre-pandemic, pandemic and post-pandemic phases. Taking a comparative approach, across the three cities, draws attention to issues that resonate and rebound with disconcerting regularity across the fringes of urban society in locations thousands of miles apart, but also encourages suggestions towards how more positive change might be promoted.

We commence by outlining the innovative peer-research methodology which was crucial to successful conduct of this study with young women living in highly precarious circumstances in insecure neighbourhoods. Reviews follow of the literature linking gendered employment to transport-related social exclusion, and the specific conditions prevailing in the study neighbourhoods. We then present three vignettes reflective of women's diverse experiences across the cities, and draw on this and related evidence to explore two (often inter-related) themes central to so many women's employment decisions and potential: mobility scheduling and experiences of harassment. This leads on to discussion of women's current travel tactics and finally to reflections regarding the potential for promoting more positive, potentially transformative, travel-to-work futures.

2. Methodology

The action research study, centred on young women c18-35y, was embedded in a co-production approach which foregrounded young women's voices, including through community co-investigation ([Porter, 2016](#)). This entailed recruiting 6 unemployed young women in each city through local NGOs/CBOs. All were aged between 18 and 35 years, a few of the younger ones in each city were unmarried, while those in their 30s included both married and unmarried women. All were residents of the selected low-income study neighbourhoods. They were provided with a 5-day desk and field-based training (covering in-depth interviewing, participant observation, personal mobility diaries, ethics) so they could undertake primary research with their peers (friends, family, neighbours in the same age-range). A local daily rate was agreed, appropriate to context, initially covering the training week and an additional minimum 10 days of further research.

This data (all collected pre-pandemic) helped identify key research questions for further follow-up by the academic team (also pre-pandemic). Most peer researchers continued to work on an occasional basis through the project, assisting with recruitment for academic-led interviews and focus groups and participating in meetings with the wider city consultative group (CCG).² During the pandemic (when no interviews could be conducted) they were paid additional days for writing daily (im)mobility diaries. In the low-income study neighbourhoods, entry by 'outsiders' (even long-standing residents from elsewhere in the same city) always required careful negotiation. During pandemic restraints on movement, peer researcher observational insights into the impact of (im)mobilities and deepening precarity, evidenced through their diaries, were especially critical to the continuation of our study ([Porter et al., 2022, 2021b](#)). Due to time/funding constraints,

² The CCGs were set up at the outset in each city, to enable the peer researchers and academics to have some engagement with transport policy makers, practitioners and private sector actors regarding gendered travel challenges. These meetings, planned for c.4-5 monthly intervals were largely disrupted during the pandemic, so that only end-of-project CCGs could be held post-pandemic.

post-pandemic research was limited to group workshops (see [section 7](#)) and end-of-project CCGs.

Both peer and academic researchers focused primarily on collecting qualitative data. Our focus was on building an ethnographic approach that centred on women's lived experiences of travel to work in each of the study neighbourhoods. In-depth interviews (conducted principally by peer researchers, complemented by a very small number of academic researcher interviews) covered a range of themes: employment history; family attitudes to female employment; experiences of journeys to work/job search/training programmes; travel safety and security; mobile phones as a travel aid; employment aspirations. Each woman was interviewed on one occasion only, and the interview set included a great diversity of women as each peer researcher found young women aged 18-35 to interview, drawing from a mix of friends, neighbours and family members resident in their local neighbourhood. Some of those interviewed were working (in diverse locations and a mix of occupations), others were unemployed, yet others were searching for a job; some were married, some divorced, some still single; some had children, some lived with parents – altogether an extremely diverse mix. Mobility diaries, by contrast, only encompassed peer researchers' own personal mobility experiences: each diary comprised a record of their movements over the day concerned and their related reflections around mobility and immobility.

In total, 217 interviews and mobility diaries were collected in Abuja (plus 135 Covid (im)mobility diary entries), 81 in Cape Town (plus 213 Covid entries) and 148 in Tunis (plus 71 Covid entries). Some interviews were recorded (particularly those by academic staff), but the majority of peer researcher interviews were initially hand-written verbatim accounts in notebooks, subsequently transcribed by themselves or support staff. In Tunis most interviews were conducted in Arabic and most peer researchers wrote mobility diaries in Arabic. In Abuja interviews were mostly conducted in English, Hausa or a mix of the two languages; diaries were mostly written in English, sometimes interspersed with Hausa. In Cape Town most interviews were conducted in Xhosa or English, or a mix of the two languages, while diaries were all written in English. WhatsApp messaging between team members (peer researchers and academic staff), often linking to local media sources, provided wider context, particularly during the pandemic.

Working with potentially vulnerable people required particular attention to ethical issues. The majority of our participants were over 18 years, but a small number of focus groups were held with girls in school, some under 18, in which case permissions from headteachers and parents were obtained before requesting permission from the girls themselves. We initially aimed to preserve anonymity for all respondents,³ but some of our peer researchers have subsequently chosen to have their names included as co-authors in project publications.

3. Background context

3.1. Linking transport-related social exclusion with livelihood potential

There is growing concern regarding transport-related social exclusion of people living in low-income contexts and the implications for livelihoods ([Bryceson et al., 2003](#); [Venter et al., 2007](#); [Porter, 2007](#); [Lucas, 2012](#); [Lucas and Porter, 2016](#); [Porter et al., 2021a, 2023](#)). At a time that young people – particularly young women – are regarded as insufficiently tapped human resources in Africa's development story, they simultaneously experience social and economic exclusions that drive them into unemployment and poverty. Although there is now a profusion of work engaging with the informality of African cities ([Pieterse and Simone, 2013](#)), and growing emphasis on youth's place within it, new thinking is required on urban mobility.

Many reviews highlight issues of youth exclusion and its gendered

³ Our ethics permissions also required anonymity of research sites.

dimensions but continue to omit any specific reference to the transport dimensions. Fox and Gandhi (2021), for instance, list a range of social factors that impede women's ability to earn income in sub-Saharan Africa, including lack of secure access to land and other assets, credit, as well as occupational segregation and workplace harassment norms that impede equal pay, but make no reference to the crucial importance of travel to work. An earlier example is UNDP's Arab Human development report, 2016, which similarly fails in this respect. By contrast, however, a recent World Bank report (Dominguez Gonzalez et al., 2023: 4) has brought a welcome new emphasis to the critical role of transport for women's participation in the labour force, citing a battery of relevant reports and statistics: a 2017 ILO report that identifies "lack of transport as the greatest challenge to female labor force participation in developing countries, reducing the probability of women participating in the labor force by an estimated 16.5 percent"; an IMF report that "countries see significant macroeconomic gains when women can develop their full labor market potential" and a McKinsey report which suggests that "in a 'full potential' scenario in which women play an identical role to men in labor markets, the global annual GDP could be increased by as much as \$28 trillion, or 26 percent, by 2025."

Young women are discriminated against widely with regards to access to safe spaces in cities but this is particularly evident with regard to their access and use of transport, which affects access to skills acquisition and employment across all sectors (Venter et al., 2007; Doan, 2010; Salon and Gulyani, 2010; Skelton and Gough, 2013; Chant and McIlwaine, 2016; UNWomen, 2017; Porter et al., 2018; Vanderschuren et al., 2019; Möller-Jensen and Agergaard, 2022; SuM4All (Sustainable Mobility for All), 2023). This point is well made in Adamu's (2008) observations of the impact on northern Nigerian women of *shari'a*-related campaigns to stop them riding as passengers on commercial motorcycle-taxis.

Discrimination against women is also a key feature of quality employment within the transport sector itself (Porter and Omwega, 2022; Porter et al., 2023; SuM4All (Sustainable Mobility for All), 2023; Murphy et al., 2024; SuM4All (Sustainable Mobility for All), 2023). It is important to stress that the two elements are inter-related, since women's lack of visibility as workers in the transport sector contributes to male dominance of transport and travel operations, as well as both perceived and actual women's safety. This also helps explain why transport planning is both gender blind and gender-biased (Uteng, 2012; Omwega, 2024).

3.2. Gendered employment and transport deprivations in the study neighbourhoods

The study focuses on young women's access to employment in peripheral locations of three major city regions, Cape Town (legislative capital of South Africa), Abuja (Nigeria's capital) and Tunis (Tunisia's capital). These city regions, set in very diverse country contexts, are nonetheless among the more dynamic parts of their respective national economies and hence continue to attract much migration from young people seeking work. They thus offered an opportunity to explore impacts of transport practices in very different cultural, socio-economic and political environments. While each city region has relatively high employment potential, by comparison with other parts of their respective country, youth employment for the majority resident in the city peripheries (common location of recent migrants and low-income families) is typically in precarious, poorly paid, informal sector work. This is set within a wider context of neoliberalising economic development strategies entailing the retrenchment of public service delivery, such that there is relative deprivation of resources compared to more central urban locations, and poor existing infrastructures, all of which place heightened pressure on journeys to, and engagement in, employment. For young women, opportunities are particularly sparse and tend to revolve around petty trade, food processing and service activities such as hairdressing (e.g. for Tunis: Mansuy and Werquin, 2015; for Cape Town:

Hall et al., 2015; for northern Nigeria: Meagher, 2015). Higher paid work mostly requires women to travel some distance from home towards higher income locations, with significant costs in terms of transport fares and time expended. Many also have small children and other caring responsibilities that may further restrict their work schedules and travel potential.

Prevailing travel conditions present additional hurdles: in low income areas of all three study cities, transport constraints commonly comprise a combination of poor infrastructure (poorly maintained, sometimes unpaved roads, lack of separate pedestrian walkways), poor quality, irregular and unreliable (mostly informal) transport services with limited or absence of night-time services, high transport fares, and issues around safety and security, on public transport, at transport hubs and when walking to and from home. Affordability issues and women's time constraints thus tend to be coupled with generalised concerns around women's safety in public space. This is further shaped by Islamic norms of propriety and family honour, particularly in Tunis (Holmes-Eber, 2018) and among Northern ethnic groups in Abuja.

The overall impact of the prevailing 'mobility regime' (Sørensen, 1999) is to promote women's employment in locations close to home (Venter et al., 2007; Adamu, 2008; Salon and Gulyani, 2010; Porter, 2011; Lucas and Porter, 2016; Lucas and Porter, 2016; Eagle and Kwele, 2021; Vanderschuren et al., 2019; Martin, 2022).

When women venture to work any distance from home, profoundly discouraging travel experiences may ensue. Such young women rarely own or have access to private cars, bicycles or motor-cycles, so are dependent on walking or using public and para-transport systems, and thus become highly vulnerable as they move outside familiar terrain (Venter et al., 2007): they are 'transit captives' (Ceccato, 2014). The transport modes that women most commonly utilise for moving within and beyond their neighbourhoods differ (minibus-taxis, shared saloon taxis and train in Cape Town; motorcycle-taxis, tricycle-taxis, buses and shared saloon taxis in Abuja; collective minibus-taxis, buses and metro in Tunis) but an overwhelming 'affective atmosphere' imposed by male control of transport operations predominates in all three (Porter et al., 2023). Fear of urban violence, associated disorder and crime, extending beyond the transport system across these low income neighbourhoods, contributes further pressure. The following vignettes of three young women – all in their early 30s – demonstrate how lack of accessible safe transport, coupled with prevailing societal norms, can play out, constraining employment opportunities, frustrating career aspirations, and diminishing livelihood potential and life chances. The first vignette relates to Tunis, where we met some women who did not even look for employment if it required travel by public transport, due to transportation constraints coupled with high demands for their time as carers and escorts, personal/family honour concerns and the particularly high potential for sexual harassment in this city (discussed further below). The second and third vignettes relate to women resident in the study locations in Abuja and Cape Town where precarity is such that most women simply have to try to find work of some sort, if they and their family are to eat and survive, despite the many travel challenges they face. In Cape Town remnants of the apartheid-configured city plan still impose particularly long journeys from the townships for paid employment in or closer to the city centre.⁴ Each of the three vignettes is drawn from an interview conducted by a peer researcher with another woman (friend, neighbour or family member) resident in her neighbourhood.

4. Three vignettes

4.1. Shedia, Tunis

Shedia, 30 years old and unmarried, has a degree in a computer

⁴ Shah and Sturzenegger 2022. Search, Transport Costs, and Labor Markets in South Africa (harvard.edu) last accessed 20th November 2024.

studies (though her family, with whom she still lives, were against this, seeing it as a 'man's field'). She used to work in central Tunis but "*I left because of transport. I lived very far so commuting was very hard, I arrived late and had to leave early for home. I am now unemployed. I had government aid for unemployed graduates, but they don't give it anymore.*" Her journeys to work had been challenging, selecting between the collective taxis, private and public buses, all of which are "*always full.... all are crowded... The struggles I face. The bus breaks down a lot, it is always crowded, and sexual harassment.... We do not travel alone. There are very professional operators. When you leave your house, there is a 50% chance something will happen to you, or that it happens in front of you... when you get on the bus, by the time you reach town you are married!... I put my bag in front of me, and a woman behind me, but I am still scared... Some can only travel as women in my neighbourhood with a man. Someone I know, her dad wouldn't allow her to go to work unless someone from work accompanied her. A 35-year-old woman! I was shocked.... Wherever I worked I lost my job because of transport. My speciality (means) there aren't jobs (here).*" Finding alternative work where her travel schedule and potential delays in arrival would be acceptable has proven impossible. The fact that she lives in a stigmatised neighbourhood compounds this issue. "*Sometimes we don't get hired because we are from (here), because it is too far. I used the Carthage (high status area) address of a family member when applying for jobs because otherwise I can't get hired. There is a big problem in the afternoon, when I have to leave (early).*" Low salary (despite her qualifications) further restricts her transport options: "*When women get on the bus, they pay the ticket, in case there is a check. Men don't even bother to buy a ticket. If there is a controller on the bus, they will fight. On the internet they say 40% of people don't pay on the bus - it is largely men. Women's job search is more limited than men, because men don't pay to travel.*" Shedia is emphatic that, if women can afford it, they will pay for safer transport. "*They'll dedicate more money. Women may have to take a cab when men may hitchhike.*"

4.2. Adamma, Abuja

Adamma, aged 33, is married with three young children. She is from a southern Nigerian ethnic group but has been living in a low-income neighbourhood in Abuja for some years. She set up as a water seller when she first left school, and still works as a petty trader, but has graduated to selling higher-value food in a kiosk outside her house. This location saves her travel time and money and enables her to keep a careful eye on her children, without employing a house help. However, travel costs still shape her decision-making when it comes to reprovisioning journeys: "*I was supposed to go to market on Tuesday, I could not go because of the transport issue.*" Transport had recently become even more costly because of a government ban on low-cost tricycle-taxis (keke-napep) in the peripheral areas of Abuja, thus requiring travellers to use expensive saloon taxis instead. Adamma has calculated the impact on her business: "*If I should go to the market to buy the few items I need to buy, after spending money on (taxi) drops, I believe (I) am not making any gain. Instead, (I) am losing, so I decided not to go..... I will end up spending 100 Naira (on the taxi to get to market) and, when I get to the market, the stuff I will buy, I need to take a (taxi) drop to my house, so drop (back with goods) to my house will not cost me less than 700 to 800*". Now, she argues, she is spending 1000 Naira (at time of interview c. £2.0 GBP) where the keke journeys would have cost not more than 350 or 400. The keke system had worked well for her, as she would go to the lorry park and just take any tricycle-taxi waiting for business there: "*any keke I see in the park I just pick and pay. I don't have a particular one because I don't want to be used to a particular keke. Most times if I see that you have been bringing me too much, I change keke. (prompt -why?) Sometimes its better you don't keep them too close - security reasons*". Security is a significant issue in Abuja and Adamma refers to an area "*close to the bush (where) a lot of things happen. I heard so many cases of armed robbery so am not really comfortable with that side.... I heard some things go wrong in that place... people say bad things happen there, passing at night. A lot of people say I don't want to pass there so that my phone will not be snatched. I believe a lot of things go wrong -*

me, I don't have time to go to those places." Theft is not the only risk: kidnap is a growing fear for women in these low-cost neighbourhoods (discussed further below). In response to another question about travel risks, Adamma reflected, "*The life risk (is the biggest risk) because of how bad the roads are. The roads are bad and some drivers are so reckless they don't drive with their conscience. Many times, when people will be like 'Oga, slow down', it seems when you tell them slowdown that is when they speed more!*" Speed of travel is a constant concern and complaint of women passengers in Abuja, on all forms of taxi transport: stories of ensuing fatal accidents are numerous.

4.3. Nkosi, Cape Town

Nkosi, 33 years old, has two children (2- and 12-years-old). Nkosi still lives in the township where she was born. Following school (through to grade 12), she was very fortunate firstly to find a job as a cleaner in a place just 3 miles distant, then to move on to being a 'general worker' at the office of a parastatal in the same location. Each work morning she takes a walk of about 10 min to reach the taxi rank and catch a minibus-taxi work. Getting a taxi can be challenging, but there is usually quite a good supply during rush hours at the taxi hub on the township periphery. Once in the taxi, seat position is important: sometimes, if the taxi has already nearly filled, she has to take the least-preferred seat next to the driver "*so I had to count money that is paid by the passengers. It's annoying to do something you don't want to do, but if you are sitting in front it is a must that you count the money because the driver is busy driving and some money (from passengers) needs change, so he can't do them both driving and counting. So whether you like it or not, you have to count. It seems to be rude to refuse counting while you (are) seated in front.*" The taxi journey takes only around 20 min to get to the taxi rank in town, and costs c. R8 (at time of interview c. £0.4 GBP) for a single journey. Often, the drivers speed, so "*the bad thing (on my journey yesterday was) that the driver was overtaking a lot of cars while it was rush hour, but lucky for us there was no dangers (but) last week I was coming back from work when the taxi that I was in almost knocked off some guy who was riding a bicycle. Luckily the guy managed to escape without any injuries.... I try to be calm as possible as I can (if trouble arises on my journey). If there is anything that I can do I intervene, but if it's beyond my control then I call (using a smartphone) any emergency help that is needed in that particular incident.*" Transport is a huge problem as sometimes we arrive late at work because of transport not arriving on time, which will result in getting written warnings. Some people are ended up losing their jobs because of being late, more especially in restaurants and retail because, while you are not coming by the time your schedule tells you to come, they call the casual person to cover your duty. When you come the manager is already book(ing) you off duty; you go back home so you will get less hours for that week. If drivers can be punctual when it comes to time management and stops overloading taxis things will be much better." Nkosi relies heavily on local taxis for her daily travel. Her uncle owns a car but it is not available to her. She would like to have a car, "one day", and learn to drive, "*but the thing is, I don't have a chance to make driving lessons because (I) am working Monday to Friday, 8 to 5 pm (and) am only off weekends which is only Saturday that am doing the house cleaning properly and doing the kids washing. Sunday it's church time so I don't have time even to rest unless am on my 3 weeks leave which is once a year.*" Currently, Nkosi travels to visit her boyfriend, who lives about 25 miles distant, at weekends. This journey entails taking a number of taxis to cross the city. She leaves her elder son with her mother because of the high cost of the taxi fare. Her younger son travels with her because, until he is 3 years old, he can travel for free: then he will also be left at home.

These three vignettes give some flavour of the mobility challenges, vulnerabilities and emotions young women may face when travelling to work from low-income areas of the study cities where they reside. All three women refer to the need to manage transport costs and the dangers posed by reckless, speeding drivers. Other issues include harassment and insecurity; travel time pressures, unreliable transport and impacts on job retention; overloading of vehicles; and theft. In the following sections

we further explore two (often inter-related) themes that are particularly critical for women's journeys to work – mobility scheduling and harassment - and consider the different ways they present in each city.

5. Mobility scheduling: domestic/care responsibilities and trip-chaining requirements

Women's experiences of trip-chaining on the urban journey to work are very well known in global North contexts (Primerano et al., 2008; McGuckin and Nakamoto, 2005) but there is less information for the global South. Rare examples include work in Asia (Levy, 2013; Zhao et al., 2015; Subbarao et al., 2020) and in Ibadan, Nigeria (Olojede and Samuel, 2018). However, these studies offer little detail as to how women experience everyday trip-chaining and its stresses on the journey to/from work. In all our three study cities, we met many young women juggling the pressures of earning an income while looking after children, or coping with other household management and domestic/caring responsibilities. This often sets the context for their engagement in work-related mobility. One solution may be to work very close to home (Adamma's case) or leave young children with a (usually female) family member in the same household (as Nkosi does). Many women, however, have to first drop young children at nursery, school or a carer's house, on the way to work, perhaps then look in on an elderly relative. They will probably then repeat the same process on the way home from work, unless they have a family member available to escort their children home. Their journeys may be further compounded by the need to stop to buy essential items such as groceries, charge their phone, or conduct key social networking activities or religious obligations, and then travel, possibly alongside bulky items. Alongside these issues, many women have to consider wider concerns regarding potential harassment, particularly after dark; this is a factor that can have significant impact on decisions regarding employment and associated travel scheduling decisions.

In our Cape Town sites, walking children to school in the morning and then picking up a minibus-taxi to go on to work seems to be the most common form of trip-chaining. Some areas of housing are inaccessible by taxis: as one mother with a 5-year-old daughter pointed out, before going to work as an administrative assistant five miles away, she must first walk her daughter to school on the other side of the settlement where she lives, then pick up a taxi to get into work: *"I take her every morning and then I go pick her up again at 1 o'clock. We walk... I leave the house at a quarter-to-eight, then I take her and by eight we are at the school gate... I just don't like walking (but) I have no choice, there are no taxis from here to the school."* Previously, she had been living further from work in another township where she had to rise as early as 4.30 a.m., *"wake up, get ready wake her up, wash her and get her ready for school ... and then I had to walk to the taxis"*. A stressful walk to the taxi would be followed by a long wait till the taxi had filled up, with a further two taxi journeys required before she reached work. With only one day off each week, this was a punishing schedule, but acceptable, *"because at the end of the day I was getting money and I had no choice"*. An aunt would meanwhile pick up her daughter from school because she had to work till 6 pm and then start the long journey home. Another woman found this early routine in winter, when journeys have to be conducted in darkness, so stressful due to fear of crime that *"I couldn't deal with two kids and work, so I sent my kids to their daddy house (in another city)"*. Sadly, she only rarely sees her children now.

Similar schedules were explained in Tunis. A young woman with three boys (6, 4 and 9 months) who works in a clothing factory described how she gets up at 5 a.m., makes breakfast and lunch to take with her to work (to save money), gets the children up and fed, then takes them to her mother's house nearby. Mother will keep the youngest and take the other two to kindergarten. Meanwhile, she walks to the bus station before 6 a.m. (i.e. in darkness) and waits for the bus. By 7.30 she is within five minutes walk of her work place. In the evening she finishes work at 5 p.m., walks to the bus station – the bus is often packed, with no

seats available. By 7.15 she has reached her mother's house, picks up the children, walks home and makes dinner, then straight to bed!

In Abuja, getting children to school before travelling on to work again seems to be the most common trip-chaining journey for young women, but in low-income areas here the drop-off journey with children is often now made by motorcycle-taxi rather than on foot, in part related to concerns about kidnap by so-called one-chance taxis. A young teacher, for instance, drops her three-year-old girl at school around 7 am, a 15-min ride, before travelling on to her own school. *"My daughter I carried in between me and the rider and (I) dropped her in her school."* On her return home from school that day *"they squeezed us. We were four at the back"*! She describes these hazardous journeys as *"normal"*.

These descriptions give some insight into the long, arduous days that many young women - especially those with children – face as they juggle domestic responsibilities: men seem to rarely enter the story when it comes to escorting children to and from school. This resonates with conclusions regarding the impact of children on gender patterns of work in a Nairobi slum (Salon and Gulyani, 2010). Women's quality of life is inevitably impaired – there is little opportunity for leisure or engagement in civic activities. When journeys are conducted in the winter months, there are additional stresses around walking during the hours of darkness given women's widespread fears of harassment (further discussed below) and poor visibility leading to increased danger of traffic accidents. In Tunis, in particular, this led to some women selecting jobs they could take just for the summer months, and withdrawing from that employment in the winter.

6. Experiences of harassment

Once low-income women have discharged their caring duties each morning, they may well have to face up to a second major travel challenge of the day – harassment. Harassment – verbal, visual and physical – is a common challenge women face when they travel, as is being increasingly documented in both the global North (Lubitow et al., 2020) and South (Bhattacharyya, 2015, Kusters 2019, for India; Duncel Graglia, 2016, Allen et al., n.d, Kash, 2020, Quinones, 2020, for Latin America). Indeed, the threat of harassment often plays back into the shaping of women's travel schedules, as noted in section 5.

For young women, the likelihood of sexual victimization seems to be particularly high (Ceccato and Loukaitou-Sideris, 2021). In Africa, the Kenyan #MyDressMyChoice campaign, following the 2014 video of sexual assault on a Nairobi public bus, has drawn attention to sexual harassment in transit across the continent (Otu and Agugua, 2020; Vanderschuren et al., 2023 for Lagos and Blantyre). Many women we interviewed specifically referenced male harassment in the context of crowded, rush-hour journeys between home and work (as Lewis et al. observe, redolent of Goffman, 1971:143 'exploitation of contact'). They are pushed, shoved and sometimes sexually harassed (with emphasis on this latter issue greatest in Tunis). Outside the rush hour, public transport tends to be sparse: now the danger may lie more in walking to and from home, near-empty vehicles, and extended waits for transport in insalubrious public spaces. Spatial and temporal context thus heavily influence the nature of hazards experienced in each city and may thus reverberate back on travel scheduling decisions, except in contexts of extreme precarity.

Shedia pointed to the scale of the harassment problem in Tunis that women face travelling to work, including harassment of a sexual nature from strangers (Wesselmann and Kelly, 2010). This is a theme taken up by numerous other young women interviewed there (commonly alongside stories of verbal abuse/bullying and intimidation that may or may not involve sexual references). In low-income areas, regular overcrowding on sparse public transport facilitates concealed, unwelcome physical contact (touching, groping, rubbing; even flashing and masturbation), in addition to specifically sexual comments. One 21-year-old who travels regularly to work in the city centre by public bus shuddered as she told her story, *"One time, a man got very close to me and*

stuck his body against mine. When I asked him to back off, he told me that if I didn't like it, I should take a meter taxi. I was the one to blame!" Another 21-year-old noted how "In the summer, it gets very hot and smelly. And sexual harassment increases. But I have to accept it. It's either that or I stay at home with no job."

For some young women, such experiences, if spoken about, can lead to family disapprobation and an end to their employment opportunities: "I used to have a job but now I don't because of a sexual harassment incident. My dad prevented me from continuing to work. I used to working in an electronics factory (20y). One time, I had an internship So I took the bus that took two hours. People were stacked like sardines. And there was a lot of unsolicited touching and harassment. A man got very close to me to the point that I was not able to breathe. When I told him off, he said that (women) play innocent but they want it. My fiancé heard of the story and manage to find him and give him a beating...but after that incident I decided to quit my job (37y)." Even walking to and from transport can offer challenges in Tunis: "Last year, I left my house for work at 5AM and I was attacked by a man who took my purse and beat me up. It turned out that the man was my neighbor, he returned my purse and his parents begged me not to file a lawsuit against him. His mother begged me so much that I dropped the charges." (36y, married, works as a cleaner outside the city).

During the pandemic in Tunis, our peer researchers noted that, for a time, sexual harassment declined, because regulations regarding carrying capacity meant the opportunities to press against women were much rarer, but this did not stop visual harassment which reportedly continued.⁵

In low-income areas of Cape Town, harassment on the journey to school and work is widespread: urban violence and insecurity form a pervasive backdrop to life in these locations. Verbal abuse may dominate, but sexual harassment is so common that fear of rape presents as a regular subtext in women's stories of travel: "Most of us, as ladies, doesn't want to get to a taxi full of men. Even if its during the day that doesn't matter because they can do as they please." Young women in a focus group described these hazards in some detail, with one woman emphasising how being touched is the one thing that really makes her angry about using public transport. Most of the group agreed that it happens a lot in taxis, though one commented that her school friends used this to their advantage: sitting in front by the driver, "they play nice, and allow them to look at their legs or even touch in exchange for a free ride." There followed some discussion about dress, reaching the conclusion that whether you're wearing a short skirt or you are covered up "if the taxi driver wants to touch and feel you they will always try their luck."

Another young woman described the leering and sexual innuendo she experienced while getting off a mini taxi at the terminus while wearing a short dress, despite her brother's presence: "as I was walking past the taxi drivers who were standing waiting for the taxis to be full, they were making very funny comments just in front of my brother. I was so disgusted because it was pretty clear that you cant walk around looking the way you want to because, especially to the taxi rank..you know they will do these comments, even those who are old enough to be your father... and you cant comment back because you are afraid that they can do something bad to you. The comments were 'dudlu ntombazana! (You are a snack)' and that made me feel like I was for sale!"

Walking dangers were raised by many women in Cape Town: in this context harassment can rapidly turn into sexual violence. A 21-year-old shopworker employed in a distant suburb described how important it is to have accompaniment on early morning walks to the taxi stand. She waits for "my boyfriend to accompany me to the taxis because I will never take that chance of walking alone as some other day I heard a lady screaming for help. That means she was getting mugged and none of us came out because it was vey dark and the rain started to pour, and we all stay here knowing how dangerous this place is."

⁵ For other stories of harassment in Tunis, including COVID-19 experiences, see Porter et al. 2021b and Murphy et al. 2023, 2024.

In one area our researchers had to withdraw when roads were blocked and taxis attacked by local inhabitants because of circulating stories of taxi drivers raping and murdering young girls. Schoolgirls in a focus group observed how they are sometimes even too scared to go to school "because you have to go on the highway and they (gangs with guns) operate there. Sometimes you have to miss school because of that." This does not augur well for their education and future employment potential.

In Abuja, women are also concerned about travel harassment. The aggressiveness of men when boarding public transport is intimidating: "Some will tell you that it is against his own religion to sit near a woman. So there is no way you can sit near them, so you either wait for vehicle that carry only women or you wait and see another way of transporting yourself." General verbal abuse was coupled with fears of physical harm, not least kidnap and rape. "Mostly in the night... you will be afraid. The bike-man that is carrying you, you don't see the face in the night -you just take the grace of God. Some of them they may take you to where you don't even know.... Even rape, at night when they know that it is only you." One woman told how there is no possibility of night travel in her neighbourhood since the motorcycle taxis do not operate there after dark, "because they (robbers) will kill you and collect the bikes". Many young women in Abuja say their greatest travel fear (apart from accidents) is kidnap. They are extremely cautious about getting in taxis (so-called 'one chance' (Olaniyani et al., 2023): "you don't know the kind of person who owns the car. They tell you they are passenger (but) they may be kidnappers." "They will take your child, they will rape your children."

In (pre-pandemic) in-depth interviews, Abuja women made few specific comments about sexual harassment such as touching during travel - fewer than in either Tunis or Cape Town. Perhaps limited reportage related to fears focused more on travel accidents, kidnap and murder; also more travel with accompanying children. However, a few men offered stories, such as the young man travelling by bus, who told how "there is this guy that enter the bus and I don't know whether the guy was enticed by this lady or what. Then he went to sit and the lady was standing. Even before there was a body contact between them I just saw his trouser was wet... I saw this myself.... she just kept quiet."

In all three cities, women rarely shout out when sexual harassment incidents occur and subsequent reportage, either to the police or transport authorities, is also extremely low, as has been noted in many other countries. Statistics thus mean little, and some women appear not to want to recount experiences, even woman-to-woman. Perhaps the woman in the Abuja incident cited above didn't realise what had happened (Lewis et al., 2021), but in many cases women are simply too embarrassed to make a fuss and do not follow up with relevant authorities. If they do, they may well be accused of hysteria, and there is little likelihood that their case can or will be acted upon by these male-dominated institutions (Quinones, 2020). As one young Tunisian woman emphasised after a particularly unpleasant experience of stalking: My mom refused that I go to file a complaint. So I didn't. Inevitably however, there is likely to be some psychological impact, with potential subsequent retreat from public transport and employment (Olaniyani et al., 2023).

7. Mobility tactics

Women cope with scheduling constraints, potential harassment by strangers, and other travel challenges through a variety of strategies. Scheduling is particularly difficult in low income areas where transport is sparse, so women will often look to make an arrangement with a trusted taxi or motorcycle-taxi driver (if they can afford this) so they can be picked up from/taken home at a pre-agreed time. This sometimes also helps when it comes to travelling home with heavy loads: in Abuja the motorcycle and tricycle taxis, wherever government regulations allow, provide a particularly valuable service in this respect. Finding a work place close to home (like Adamma's kiosk outside the house), or working from home can offer another solution, but tends to limit the type of work and income achievable.

Particularly for women with young children, scheduling that enables travel-to-work beyond the home neighbourhood tends to depend primarily on maintaining strong local social networks – principally with women relatives. However, this may also require resignation to a harsh daily regime characterised by early rising, trip-chaining, late nights and little rest. Last mile travel often has to take place after dark in such contexts, in which case many of the mobility tactics employed relate specifically to harassment avoidance. The comfort attained by praying for a safe journey, prior to travel, was referenced occasionally by women in all three cities.

The potential for harassment requires much compromise from young women (backed up by constant vigilance). Since victim blaming (by men, and sometimes other women) often focuses on dress (Ceccato and Loukaitou-Sideris, 2021), some women in all three cities suggested that they select clothing for travel to work that is less revealing of their body. There are references to dress attracting unwanted attention in Cape Town, above. In Tunis one woman told how she had been attacked when walking in the street, and that male family members “said that I get harassed because I don’t wear the hijab; people think I’m not an honorable woman. The next day I wear the hijab to avoid problems with my father.” Occasionally men we interviewed commented on women’s dress too, as in the case of this Abuja taxi driver: “What make road users to treat women unfairly on the road is their dressing code. Sometimes a married woman may dress indecent and you won’t even know she is married; you will want to take charge even if she likes it or not. But when she is dressed properly with her hijab you will think twice before talking to her....(but) some, even married women, wear mini skirts exposing their legs. You will even want to make advances towards her; such things even causes accidents if a man is driving!”

Needless to say, finding a safe travel mode/space is crucial. Women who can afford to do so board more expensive, less crowded transport, while many others talked of avoidance behaviour such as moving to another seat or changing vehicles when harassed. Many follow Shedia’s tactic of trying to position themselves where they are shielded by other women, or by objects such as shopping bags. Careful assessment of current occupants before entering a taxi is common practice, particularly in Abuja where ‘one-chance’ taxis are greatly feared.

In all three cities other avoidance strategies include careful route selection and attention to associated timing of movements, though work schedules, shifts and necessary trip-chaining before and after work do not always allow this. One woman in Cape Town resigned from a job she really enjoyed in the tourist sector because of regular theft of her bags as she travelled in the early morning. She observed: “I wish they can reschedule the early shift for women who are staying in high crime risk areas.” Another complained how “sometimes it’s hard to get transportation. Yesterday (evening) I had to walk (then take 3 buses)...I got home very tired and I couldn’t even eat. It was also hard for me in the morning. I left my house at 5AM and I was supposed to be at work at 7AM. I arrived late, as many times, and I had to fill out a tardiness form. The time missed will be deducted from my salary.” Many Cape Town women emphasised how helpful it would be if taxi drivers in their area started working earlier. In the low-income study neighbourhoods of all three cities, however, transport is extremely sparse outside daylight hours, because male operators also fear attack.

Walking routes tend to be chosen with particular care during hours of darkness given the paucity of working street lighting in low-income neighbourhoods and women look for trusted companions – individuals or a group – to accompany them. In Cape Town winter darkness, coupled with load-shedding, early morning travel (e.g. for dropping off children with family or early retail work) and night-time journeys (for work in bars and entertainment spots) are particularly hazardous. Consequently women travelling at those times try to find other people (women or men – often resident boyfriends) to walk with.

“When walking to work I make sure that I walk next to people not behind them, same as when I come back from work. We walk in a group to avoid any bad thing from happening such as being robbed or raped.”

“It is so dark in the mornings since we are still in winter, so what I

usually do is to call my friend who lives next to (my) house, as we go to the same mall unless she has a later shift than mine but in most times we wait and go together to terminus and take the same bus.”

For new migrants into these neighbourhoods, the absence of trusted escorts seems to contribute to constrained mobility.

Comportment can also help, as schoolgirls (15–18y) in a focus group observed: “You mustn’t show that you are scared, you must just walk comfortably.” One young woman in this group also carried a hat pin as a potential weapon to ward off potential attackers.

With regard to widespread dangers of theft and pick-pocketing, taking care not to carry or show valuables such as phones is a common theft-avoidance tactic. Women in each city related stories of theft – purses, bags, jewellery – at taxi stops and hubs. Given the precarious circumstances in which many live, such losses can be immensely damaging. The following incident in Tunis is typical: “I was waiting once for the bus and I was approached by a young man who asked me for the time. I was trying to get my phone out of my purse to check, he snatched my necklace and ran off. Pickpocketing is also very common on congested public transport, so many women are selective about what they need to carry: “Sometimes I leave my phone, my weave or my purse...because the criminals could take them” (Cape Town).

Post-pandemic, we held workshops with young women transport users from the study neighbourhoods in each city and asked about formal and informal reportage of harassment and other incidents. In the workshop with 24 young women commuters in Cape Town (16 of whom were travelling in search of a job), lack of trust in reporting mechanisms dominated discussion. Only one had made a formal complaint following an incident; 13 said they had spoken to the driver/owner: in all cases the response had been entirely unsatisfactory. In Abuja, 40 women in a similar workshop reported little knowledge of how to complain and report issues of harassment, despite the presence of a call centre for complaints at the city’s main bus provider. Similarly, in the Tunis workshop with 31 young women, the majority said that though they wanted to submit a complaint, they had failed to do so. A variety of reasons were suggested: there was no way to make complaints, they did not know how to complain, they feared for their own safety, cultural constraints, had had no success when previously complained, or they simply didn’t find it worth complaining! Unsurprisingly, the presence of government legislation targeting harassment has little impact in these circumstances.

8. Conclusion

While clamour grows for greater gender-equity in employment across the African continent, this evidence from particularly low income areas of three diverse cities demonstrates the very urgent need of disadvantaged women for more regular, secure, harassment-free travel that can enable them to access quality training and employment, while fulfilling their often significant caring responsibilities. However, how to address their needs is a complex and difficult question.

Firstly, there are the care/domestic duties and schedules that dominate so many young women’s lives, shaping what paid work they can hope to take up and what travel might be feasible to get them there (bearing in mind the inadequacies of public transport that provides poor connectivity across unplanned cityscapes). This has to be set in the wider context of their education and skills, accessibility of employment opportunities, available funds for daily travel, prevailing socio-cultural norms and family attitudes. And beyond those broad constraints, there lie the hazards that must be faced daily on the journey to work in neighbourhoods where public transport services are often irregular, unreliable and of poor quality, and the threat of traffic accidents and other safety and security issues – not least harassment – are very substantial. At the same time, travel hazards also need to be seen alongside the traps some women face when remaining at home, where intimate partner violence may occur. In the pandemic lockdowns, when whole families were closely confined at home, newspaper reports suggest

Gender Based Violence rose substantially in all three cities, though only a small amount of confidential material emerged from the project sites (Porter et al., 2021b).

To date, there has been little success in achieving any sustained improvement in the conditions that women travellers face on public transport in urban Africa. Over-crowding, which facilitates and promotes harassment, is a world-wide hazard on rush-hour urban journeys to/from work. In cities like Tunis there have been donor-funded proactive messaging campaigns that seem to have had some impact on harassment for a short period- but when the funding runs out they are not sustained. There are also now various technologies that can help promote safer journeys, but maintenance is essential. As Datta and Ahmed (2020) note in Kerala, Wi-Fi hotspots in bus stops, CCTV cameras and e-rickshaws are largely ineffective because they are not maintained - and for low-income women the potential to buy and use a smart phone is low. In Africa, many safety apps are appearing on the market, and these and other ICT could mediate transport as complement or substitute, but are rarely accessible to low-income women (Porter et al., 2018). Moreover, reportage alone will not suffice. Unless reportage is backed up with rapid action and some sort of redress for women, they will quickly lose faith in the process. In Cairo, for instance, where HarrassMap has operated since 2010, threats of harassment continue to inhibit women's travel to work in and beyond the low income locations where they reside (Gazarin, 2024). Pink transport options have, to date, proved controversial (Dominguez Gonzalez et al., 2023; Loukaitou-Sideris, 2014), while the greater female presence in customer-facing roles in the transport sector that could be supportive of women's travel is greatly hindered by current male attitudes and dominance of the sector.

So what can we put into an agenda in terms of transformative practice that would alter current trajectories? Building personal skills of confidence and voice among both women travellers and women transport employees seems to be one part of the key to resolving these issues in each city, given the constant presence and pressure of an affective atmosphere around transportation nodes and on public transport that denigrates women and denies them a valid place in public space. At the same time, however, it is essential that we do not simply responsibilise women for their own safety. Bystander intervention trainings, for transport users and workers of all genders, for instance, might be helpful in reducing atmospheres of insecurity. Some preliminary work we conducted alongside a local NGO with male taxi drivers in Cape Town suggests another route to improvement in attitude to women passengers: intensive engagement with men who work in customer-facing roles in the sector. However, this will require a much concerted focus on training programmes that span the whole gamut of transport service operations to achieve any significant impact. This would be worth piloting in varied contexts as another potential route towards achieving some significant adjustments in the socio-cultural norms that currently inhibit women's safe mobility so widely across Africa. Harassment, in particular, requires concerted attention to the wider prevailing social norms that enable its successful pursuit.

The relational landscape also needs to be expanded beyond low income transport users and operators to encompass more effective collaboration with other key sector actors (i.e. *just* collaboration that precludes external domination). Most transport professionals in Africa still fail to see travel security and other aspects of women's travel needs (not least the travel required to accomplish numerous caring activities) as falling within their remit (as Kash, 2020 similarly observes for Latin America).

Bringing young women peer-researchers with their personal lived experience and the research data they had collected themselves together with transport professionals, as we started to do in CCG meetings in each city, arguably offers a potentially productive route forward. Having firm evidence at your fingertips can be extremely powerful. It certainly seemed to be making some impact on the perceptions of individual professionals in the first year of our research programme, but the continuity of engagement essential for embedding this messaging was

disrupted by the pandemic. Efforts were made to continue online, but peer researchers could no longer participate, lacking stable internet access and personal computers. We had to wait till the pandemic had subsided before we could meet in person again- sadly, this coincided with the last month of our project funding.⁶ Additionally, it is important to emphasise that, while there is need for a gender mainstreaming approach that brings local voices to the fore and includes training for planners (and brings many more women into the profession), without ample resources ring-fenced to address emerging issues (e.g. better street lighting, transport services that run at regular intervals within peripheral areas in daytime and at night) these will have little impact.

There is now a handful of SDGs that should promote closer attention to individual elements of the story we have presented: - SDG5 calls for women to be empowered economic actors and for caregiving activities to be shared more equally between women and men (SuM4All (Sustainable Mobility for All), 2023), SDG8.5 targets full and productive employment and decent work for all; 8.6 points to the need to substantially reduce the proportion of youth not in employment, education or training, while 11.2 emphasises the need for access to safe, affordable, accessible and sustainable transport systems... expanding public transport, with special attention to the needs of those in vulnerable situations. The challenge is not only to further promote these targets going forward, but to bring these targets into fuller engagement with one another, recognising the complex relationalities of power that shape and constrain each constituent element, and the way each contextual setting requires full, careful consideration. Learning from the ground up, through working with those who experience extreme precarity on a daily basis, takes time and courage for all involved, because it goes against the grain of standard professional practices in the transport sector. In the long term, however, it may provide insights and potential solutions that differ significantly from conventional approaches to date and have more likelihood of achieving positive change.

CRedit authorship contribution statement

Gina Porter: Writing – review & editing, Writing – original draft, Supervision, Project administration, Methodology, Investigation, Funding acquisition, Formal analysis, Data curation, Conceptualization. **Emma Murphy:** Writing – review & editing, Supervision, Investigation. **Fatima Adamu:** Writing – review & editing, Supervision, Project administration, Investigation. **Plangsat Bitrus Dayil:** Writing – review & editing, Supervision, Investigation. **Claire Dungey:** Writing – review & editing, Supervision, Investigation, Data curation. **Bulelani Maskiti:** Writing – review & editing, Supervision, Investigation. **Ariane de Lannoy:** Writing – review & editing, Supervision, Project administration, Investigation. **Sam Clark:** Writing – review & editing, Supervision, Project administration, Investigation. **Hadiza Ahmad:** Writing – review & editing, Investigation. **Mshelia Jummai Yahaya:** Writing – review & editing, Investigation.

Declaration of competing interest

This is to confirm that there are no interests to declare with regard to this paper and that the work has not been published elsewhere. Its publication is approved by all authors. If accepted, it will not be published elsewhere in the same form, in English or any other language, including electronically without the written consent of the copyright holder. We use inclusive language throughout.

The corresponding author conceptualised the study, and wrote the paper, following her initial design of the study methodology. She also engaged in some data collection, overall field supervision and data analysis. The co-authors were all involved in field data collection, data analysis and review and editing of the final paper.

⁶ Efforts to obtain follow-on funding are still in progress.

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Data availability

Data will be made available on request.

References

- Adamu, F.L., 2008. Gender, hisba and the enforcement of morality in northern Nigeria. *Africa* 78 (1), 136–152. <https://doi.org/10.3366/E0001972008000089>.
- Allen, H., Cárdenas, G., Pereyra, L., Ella se mueve Segura - A study on women's personal safety in public transport in three Latin American cities. Development Bank of Latin America (CAF) and FIA Foundation. <https://scioteca.caf.com/handle/123456789/1407>.
- Bhattacharyya, R., 2015. Understanding the spatialities of sexual assault against Indian women in India. *Gen. Place Cult.* 22 (9), 1340–1356. <https://doi.org/10.1080/0966369X.2014.969684>.
- Bryceson, Deborah F., Tatenda, C. Mbara, Maund, David, 2003. "Livelihoods, daily mobility and poverty in sub-Saharan Africa." *Transport reviews* 23 (2), 177–196.
- Ceccato, V., 2014. Safety on the move: crime and perceived safety in transit environments. *Secur. J.* 27, 127–131. <https://doi.org/10.1057/sj.2014.11>.
- Ceccato, V., Loukaitou-Sideris, A., 2021. Sexual harassment in transit environments among college students in the MeToo era: reporting evidence from six continents. *Am. J. Crim. Justice* 46 (1), 107–129. <https://doi.org/10.1007/s12103-020-09583-9>.
- Chant, S., McIlwaine, C., 2016. *Cities, Slums and Gender in the Global South*. (Routledge: London).
- Datta, A., Ahmed, N., 2020. Intimate infrastructures: the rubrics of gendered safety and urban violence in Kerala, India. *Geoforum* 110, 67–76. <https://doi.org/10.1016/j.geoforum.2020.01.016>.
- Doan, P.L., 2010. The tyranny of gendered spaces—reflections from beyond the gender dichotomy. *Gen. Place Cult.* 17 (5), 635–654. <https://doi.org/10.1080/0966369X.2010.503121>.
- Dominguez Gonzalez, K., Kurshitashvili, N., Gonzalez Carvajal, K., Pickup, L., 2023. Closing Gender Gaps in Transport. openknowledge.worldbank.org.
- Dunckel Graglia, A., 2016. Finding mobility: women negotiating fear and violence in Mexico City's public transit system. *Gen. Place Cult.* 23 (5), 624–640. <https://doi.org/10.1080/0966369X.2015.1034240>.
- Eagle, G., Kwele, K., 2021. "You just come to school, if you made it, its grace": young black Women's experiences of violence in utilizing public "minibus taxi" transport in Johannesburg, South Africa. *J. Interpers. Violence* 36 (15–16). <https://doi.org/10.1177/0886260519840395> pp.NP8034-NP8055.
- Fox, L., Gandhi, D., 2021. Youth employment in sub-Saharan Africa: progress and prospects. In: AGI Working Paper 28. Brookings Institution.
- Gazarin, N.A.A., 2024. *Exploring The Relationship Between Transport Accessibility and Women's Empowerment in Informal Settlements in Cairo* (Doctoral dissertation, UCL (University College, London).
- Goffman, Erving., 1971. *Relations in Public: Microstudies of the Public Order*. Allen Lane, London.
- Hall, K., Ebrahim, A., De Lannoy, A., Makiwane, M., 2015. Youth and mobility: linking movement to opportunity. *South African Child Gauge* 75–81.
- Holmes-Eber, Paula, 2018. *Daughters of Tunis: women, family, and networks in a Muslim city*. Routledge.
- Kash, G., 2020. Transportation professionals' visions of transit sexual assault: the problem of deproblematizing beliefs. *Transp. Res. A Policy Pract.* 139, 200–216. <https://doi.org/10.1016/j.tra.2020.03.023>.
- Levy, C., 2013. Travel choice reframed: "deep distribution" and gender in urban transport. *Environ. Urban.* 25 (1), 47–63. <https://doi.org/10.1177/0956247813477810>.
- Lewis, S., Saukko, P., Lumsden, K., 2021. Rhythms, sociabilities and transience of sexual harassment in transport: Mobilities perspectives of the London underground. *Gen. Place Cult.* 28 (2), 277–298. <https://doi.org/10.1080/0966369X.2020.1734540>.
- Loukaitou-Sideris, A., 2014. Fear and safety in transit environments from the women's perspective. *Secur. J.* 27, 242–256. <https://doi.org/10.1057/sj.2014.9>.
- Lubitow, A., Abelson, M.J., Carpenter, E., 2020. Transforming mobility justice: gendered harassment and violence on transit. *J. Transp. Geogr.* 82, 1–7. <https://doi.org/10.1016/j.jtrangeo.2019.102601>.
- Lucas, K., 2012. Transport and social exclusion: where are we now? *Transp. Policy* 20, 105–113. <https://doi.org/10.1016/j.tranpol.2012.01.013>.
- Lucas, K., Porter, G., 2016. Mobilities and livelihoods in urban development contexts: introduction. *J. Transp. Geogr.* 55, 129–131. <https://doi.org/10.1016/j.jtrangeo.2016.07.007>.
- Mansuy, M., Werquin, P., 2015. *Labour Market Entry in Tunisia: The Gender Gap*. ILO.
- Martin, J.H., 2022. Exploring the affective atmospheres of the threat of sexual violence in minibus taxis: the experiences of women commuters in South Africa. *Mobilities* 17 (3), 301–316. <https://doi.org/10.1080/17450101.2021.1942171>.
- McGuckin, N., Nakamoto, Y., 2005. Differences in trip chaining by men and women. In: *Conference Proceedings 35, Research on Women's Issues in Transportation*, 2, pp. 49–56.
- Meagher, K., 2015. Leaving no one behind?: informal economies, economic inclusion and Islamic extremism in Nigeria. *J. Int. Dev.* 27 (6), 835–855. Available at: <https://doi.org/10.1002/jid.3117>.
- Møller-Jensen, M., Agergaard, J., 2022. Mobility regimes and equity in urban Transport: Examining Women's Mobility experiences in Accra. In: *Transport and Mobility Futures in Urban Africa*. Springer International Publishing, Cham, pp. 95–110.
- Murphy, E., Porter, G., Aoudet, H., Dungey, C., Han, S., Houji, R., Jlassi, M., Keskes, H., Mansour, H., Nasser, W., Riahi, H., Riahi, S., Zaghdoud, H., 2023. 'No place for a woman': Access, exclusion, insecurity and the mobility regime in grand tunis. *Geoforum* 142.
- Murphy, E.C., Han, S., Keskes, H., Porter, G., 2024. Driven out: women's employment, the transport sector and social reproduction in Grand Tunis. *Journal of Gender Studies* 1–16. <https://doi.org/10.1080/09589236.2023.2258075>.
- Olaniyan, O.I., Ojedokun, U.A., Aderinto, A.A., 2023. One-chance transit crime and Commuters' victimization experiences in Ibadan City, Nigeria. *J. Appl. Secur. Res.* 18 (4), 774–788. <https://doi.org/10.1080/19361610.2022.2094209>.
- Olojede, O.A., Samuel, K.J., 2018. Households' trip-chaining behaviour: evening intervening stops across residential areas in Ibadan, Nigeria. *Analele Univers. din Oradea, Seria Geografie* 28, 185–196 (ISSN 1221-1273, E-ISSN 2065-3409).
- Omwega, N., 2024. *Transport as Gendered Employment Practice in Kenya*. PhD thesis. University of Durham, UK.
- Otu, S.E., Agugua, A., 2020. An analysis of transit safety among college students in Lagos, Nigeria. In: Ceccato, V., Mahesh, N. (Eds.), *Crime and Fear in Public Places: Towards Safe, Inclusive and Sustainable Cities*, ch 10.
- Pieterse, E.A., Simone, A.M., 2013. *Rogue urbanism: emergent African cities*. Available at: <https://www.africabib.org/rec.php?RID=395556783> (Accessed: 19 November 2024).
- Primerano, F., Taylor, M.A.P., Pitakringkarn, L., et al., 2008. Defining and understanding trip chaining behaviour. *Transportation* 35, 55–72. <https://doi.org/10.1007/s11116-007-9134-8>.
- Porter, G., 2007. Transport planning in sub-Saharan Africa. *Progress report 1. Improving access to markets and services*. *Progress in Development Studies* 7 (3), 251–257.
- Porter, G., 2008. Transport planning in sub-Saharan Africa. *Progress report 2. Putting gender into mobility and transport planning in Africa*. *Progress in Development Studies* 8 (3), 281–289.
- Porter, G., 2011. I think a woman who travels a lot is befriending other men and that's why she travels': Mobility constraints and their implications for rural women and girl children in sub-Saharan Africa. *Gen. place and culture* 18 (1), 65–81. <https://doi.org/10.1080/0966369X.2011.535304>.
- Porter, G., 2016. Reflections on co-investigation through peer research with young people and older people in sub-Saharan Africa. *Qualitative Research* 16 (3), 293–304.
- Porter, G., Omwega, N., 2022. Experiences of women workers in the African road transport sector. In: Wright, T., Ison, S., Budd, L. (Eds.), *Women, Work and Transport*. Chapter 5. Emerald Press, Bingley.
- Porter, G., Hampshire, K., de Lannoy, A., Gunguluza, N., Mashiri, M., Bango, A., 2018. Exploring the intersection between physical and virtual mobilities in urban South Africa: reflections from two youth-centred studies. In: Uteng, T.P., Lucas, K. (Eds.), *Urban mobilities in the Global South*. Routledge, London, pp. 59–75.
- Porter, G., Dungey, C., Murphy, E., Adamu, F., Bitrus Dayil, P., de Lannoy, A., 2022. Everyday mobility practices and the ethics of care: young women's reflections on social responsibility in the time of COVID-19 in three African cities. *Mobilities* 18 (1), 21–36. <https://doi.org/10.1080/17450101.2022>.
- Porter, G., Murphy, E., Adamu, F., Dayil, P., De Lannoy, A., Han, S., Mansour, H., Dungey, C., Ahmad, H., Maskiti, B., Clark, S., Van der Weidje, K., 2021a. Women's mobility and transport in the peripheries of three African cities: reflecting on early impacts of COVID-19. *Journal of Transport Policy* 110, 181–190. <https://doi.org/10.1016/j.tranpol.2021.05.025>.
- Porter, G., Murphy, E., Han, S., Mansour, H., Keskes, H., Dungey, C., Clark, S., van der Weidje, K., 2021b. Improving young women's access to safe mobility in a low-income area of Tunis: Challenges and opportunities pre- and post-Covid. *Transportation Research. Procedia* 60, 266–273. <https://doi.org/10.1016/j.trpro.2021.12.035>. ISSN 2352-1465.
- Porter, G., Murphy, E., Adamu, F., Bitrus Dayil, P., Han, S., Dungey, C., Maskiti, B., de Lannoy, A., Clark, S., O'Connor, E., Ambrosini, S., 2023. The lived experiences of women workers in Africa's transport sector: reflections from Abuja, Cape Town and Tunis. *Journal of Transport Geography* 112, 103695. <https://doi.org/10.1016/j.jtrangeo.2023.103695>.
- Quinones, L.M., 2020. Sexual harassment in public transport in Bogotá. *Transp. Res. A Policy Pract.* 139, 54–69.

- Salon, D., Gulyani, S., 2010. Mobility, poverty, and gender: travel 'choices' of slum residents in Nairobi, Kenya. *Transp. Rev.* 30 (5), 641–657. <https://doi.org/10.1080/01441640903298998>.
- Shah, K., Sturzenegger, F., 2022. Search, Transport Costs, and Labor Markets in South Africa. CID Research Fellow and Graduate Student Working Paper Series.
- Skelton, T., Gough, K.V., 2013. Introduction: young People's Im/Mobile urban geographies. *Urban Stud.* 50 (3), 455–466. <https://doi.org/10.1177/0042098012468900>.
- Sørensen, K.H., 1999. Rush-Hour Blues or the Whistle of Freedom? Understanding Modern Mobility, vol. 3. NTNU, Trondheim, pp. 1–27. STS-working paper.
- Subbarao, S.S.V., Swaroop, S.N.V., Shekhar, R.S., 2020. Interrelationships between mode choice and trip-chain choice decisions: a case of Mumbai metropolitan region. *Transportat. Res. Proced.* 48, 3049–3061. <https://doi.org/10.1016/j.trpro.2020.08.182>. Available at: <https://doi.org/10.1016/j.trpro.2020.08.182>.
- SuM4All (Sustainable Mobility for All), 2023. Gender Imbalance in the Transport Sector: A Toolkit for Change. Washington DC.
- Uteng, T.P., 2012. Gender and mobility in the developing world. Available at: <https://openknowledge.worldbank.org/bitstreams/a9b17dbd-1764-569c-b8c5-f8fb8522d5d3/download> (Accessed: 19 November 2024).
- Uteng, T.P., Turner, J., 2019. Addressing the linkages between gender and transport in low-and middle-income countries. *Sustainability* 11 (17), 1–34. <https://doi.org/10.3390/su11174555>.
- Vanderschuren, M.J., Phayane, S.R., Gwynne-Evans, A.J., 2019. Perceptions of gender, mobility, and personal safety: South Africa moving forward. *Transp. Res. Rec.* 2673 (11), 616–627. <https://doi.org/10.1177/0361198119854087>.
- Vanderschuren, M., Allen, H., Krause, P., Lane-Visser, T., 2023. Lessons learnt through gender-based travel data collection and related sexual harassment in sub-Saharan Africa. *Soc. Sc. & Humanit. Open* 7 (1), 2–10. <https://doi.org/10.1016/j.ssaho.2023.100442>.
- Venter, C., Vokolkova, V., Michalek, J., 2007. Gender, residential location, and household travel: empirical findings from low-income urban settlements in Durban, South Africa. *Transp. Rev.* 27 (6), 653–677. <https://doi.org/10.1080/01441640701450627>.
- Wesselmann, E.D., Kelly, J.R., 2010. Cat-calls and culpability: investigating the frequency and functions of stranger harassment. *Sex Roles* 63, 451–462. <https://doi.org/10.1007/s11199-010-9830-2>.
- Women, U.N., 2017. Safe Cities and Safe Public Spaces: Global Results Report, Preprint. UN Women.
- Zhao, J., Wang, J., Deng, W., 2015. Exploring bikesharing travel time and trip chain by gender and day of the week. *Transportat. Res. Part C: Emer. Technol.* 58, 251–264. <https://doi.org/10.1016/j.trc.2015.01.030>.